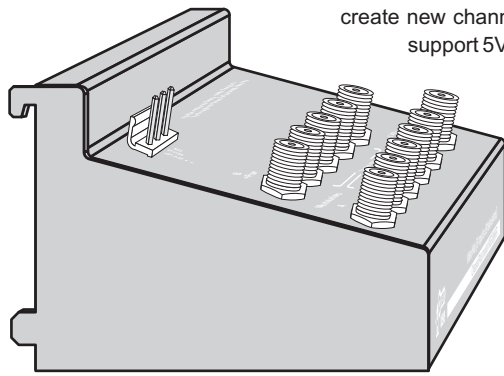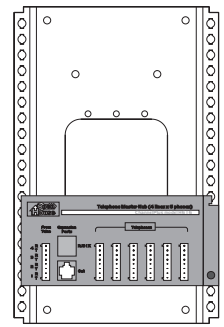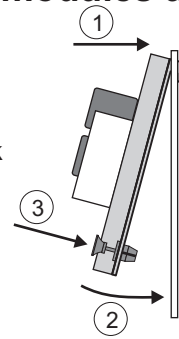# ChannelPlus Video Hubs

The H838 video hubs

The H838 video hubs distribute antenna or cable signals to up to eight televisions. The hubs provide two video modulator inputs to create new channels and have built-in IR engines to support 5V IR targets.
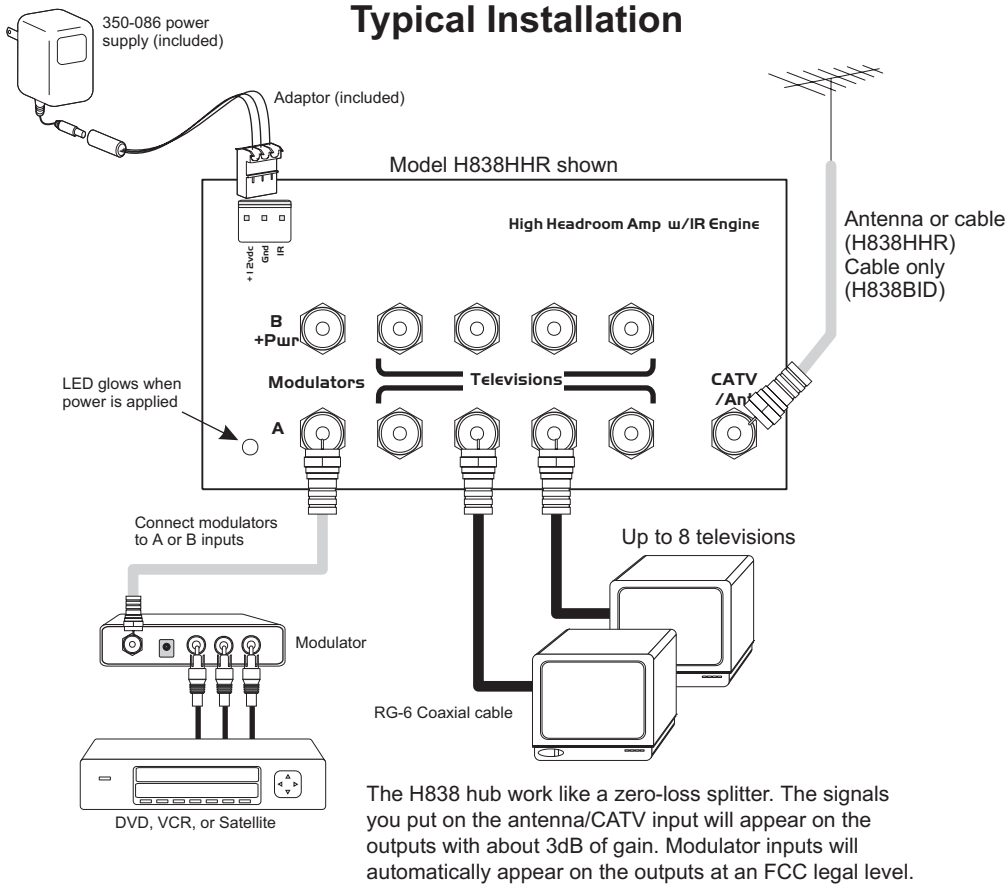
Two models are available.
The **H838HHR** has the isolation required by the FCC for any system that has modulators and an antenna.
The **H838BID** has a 5-42MHz reverse channel to support bidirectional cable systems (cable modems, pay-per-view and interactive cable).

Typical Installation

350-086 power supply (included)

Adaptor (included)

Model H838HHR shown

High Headroom Amp w/IR Engine

Antenna or cable (H838HHR)
Cable only (H838BID)

LED glows when power is applied

B +Pwr
Modulators   Televisions   CATV /Ant
A

Connect modulators to A or B inputs

Up to 8 televisions

Modulator

RG-6 Coaxial cable

DVD, VCR, or Satellite

The H838 hub work like a zero-loss splitter. The signals you put on the antenna/CATV input will appear on the outputs with about 3dB of gain. Modulator inputs will automatically appear on the outputs at an FCC legal level.

IR repeating system

High Headroom Amp w/IR Engine

B +Pwr
Modulators   Televisions   CATV /Ant
A

IR information is only available on port B

ChannelPlus H542, H544, H562, or H564 modulator

Model H933 IR target

Model H973 IR emitter

Typical remote control

To control your video devices, add a modulator with IR repeating, an IR target and an IR emitter. Point a remote control at the target in the bedroom and IR pulses are repeated by the emitter, controlling the DVD player in the den.
Any or all of the television ports may have targets connected.

Expanding the modulator inputs

Add a model H881 active combiner and a single modulator input becomes eight.

OpenHouse™ modules attach from the top
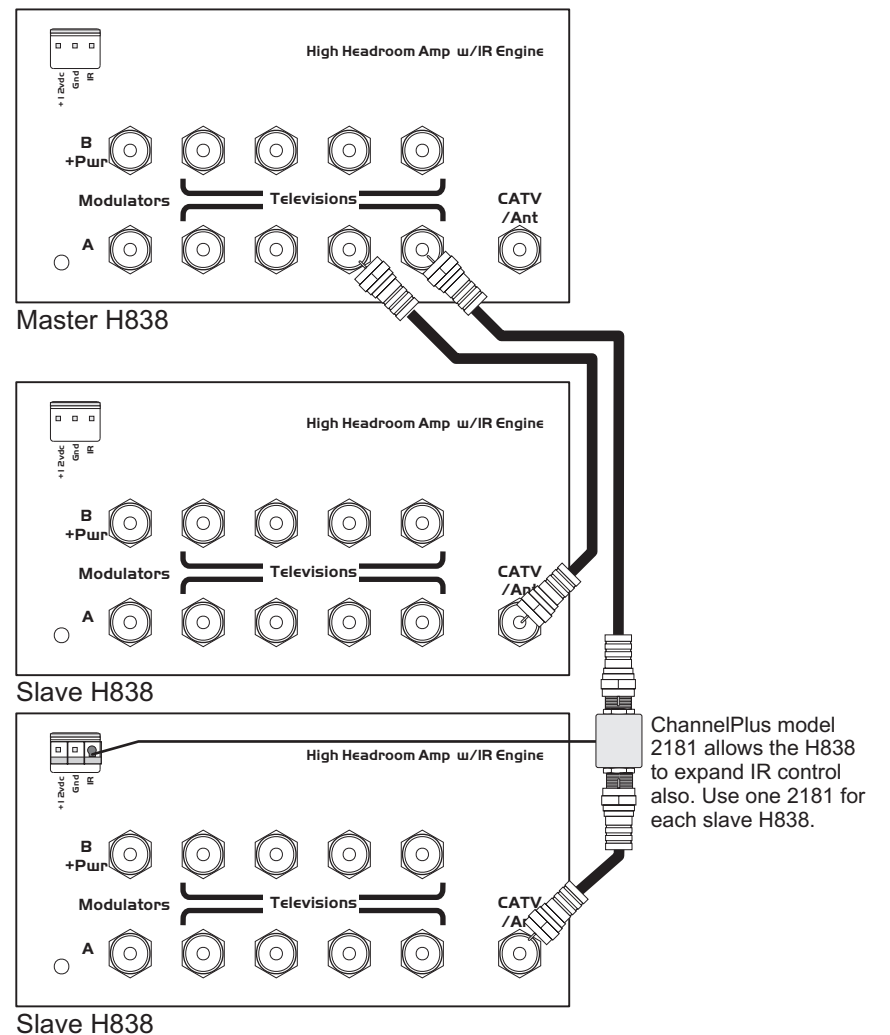

1) Hook from the top
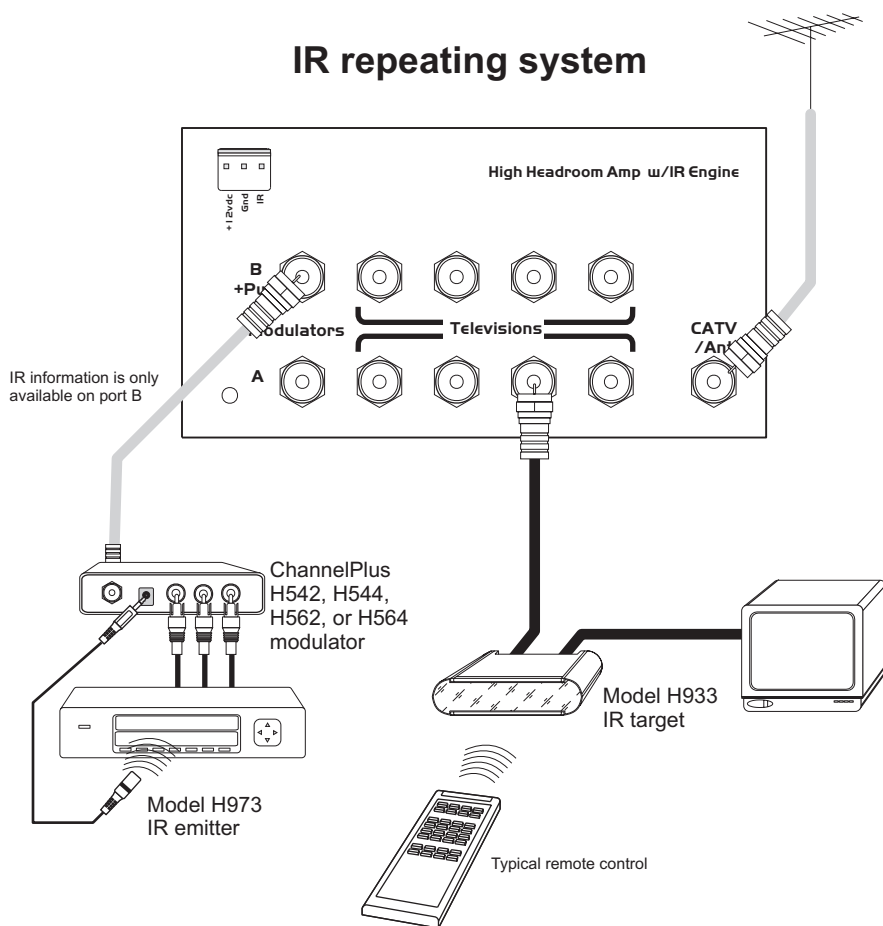2) Swing into place
3) push button to lock

Expanding the television outputs

You may connect as many as 8 more H838s to the outputs of a master H838 for a total of 64 television outlets. The longest recommended coax run should not exceed 150'. (That is a total of the coax from master to slave and from slave to TV.)

High Headroom Amp w/IR Engine

B +Pwr
Modulators   Televisions   CATV /Ant
A

Master H838

High Headroom Amp w/IR Engine

B +Pwr
Modulators   Televisions   CATV /Ant
A

Slave H838

High Headroom Amp w/IR Engine

B +Pwr
Modulators   Televisions   CATV /Ant
A

Slave H838

ChannelPlus model 2181 allows the H838 to expand IR control also. Use one 2181 for each slave H838.

Specifications: typical @ 25°C ± 5° C

	H838HHR	H838BID
Gain:		
CATV/Ant input to TV output	3dB	3dB
Modulator input to TV output	-10dB	-10dB
TV output to CATV/Ant input	na	-15dB
(5-42MHZ reverse channel)		
Isolation		
Modulator input to CATV/Ant	>80dB	>35dB
Bandwidth		
Forward	5-806MHz	54-806MHz
Reverse	na	5-42MHz
Max CATV/Antenna input	20dBmV	20dBmV
(64 channels)		
Power supply (370-086 included)	15 VDC @ 300mA	15 VDC @ 300mA

Things To Watch For:

Herringbone interference on modulator channel (diagonal lines): You may have chosen a channel number that is not completely vacant. Distant UHF stations may not be watchable, but will cause interference if you try to create a new channel at the same frequency. Also, cable companies often have extra signals where there should be none. Try moving the modulator channel to another number. You may have to add a low pass filter to remove the cable company noise. If the filter does not work, try adding a DC-block to remove common mode interference.
Herringbone interference on many channels, including modulator channels (disappears when you remove the CATV/antenna feed): The RF amplifier can be overloaded by abnormally strong signals. Often, you can cure the problem with a simple attenuator. Use a variable attenuator and try to find a signal level where the interference just disappears. Sometimes, the problem is one station is far stronger than the rest. In this case, attenuating all of the signals with a simple attenuator may cause the desired stations to be weak (snowy). You must reduce the strength of the only offending station. A common FM trap will help if the problem is a nearby FM tower. If the problem is a nearby TV station, often the station management can provide suitable filters.

FCC Requirements:
THIS PRODUCT COMPLIES WITH FCC REQUIREMENTS.
A SYSTEM USING THIS DEVICE WILL COMPLY WITH FCC REQUIREMENTS.
USE ONLY VIDEO MODULATORS THAT COMPLY WITH PART 15
OF THE FCC RULES AND HAVE 25dBmV MAX OUTPUT LEVELS. FAILURE TO
DO SO MAY VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.
THE H838HHR IS SUITABLE FOR USE WITH AN ANTENNA OR WITH
CATV SYSTEMS.
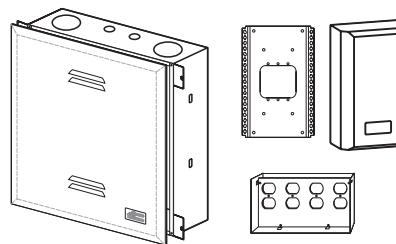THE H838BID IS SUITABLE FOR USE WITH CATV SYSTEMS.

Open House™
Compatible

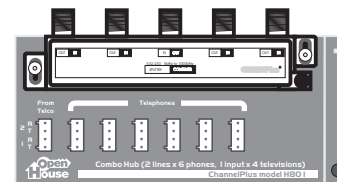# ChannelPlus Enclosures, Modules, Accessories & Wall Plates

Service center enclosures
A full line of OpenHouse compatible enclosures, from simple, inexpensive mounting plates to high capacity in-wall cabinets. AC outlets can be mounted inside the cabinets using a UL listed accessory.
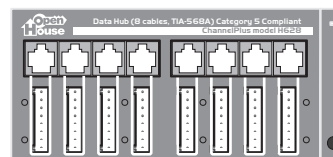
Starter systems
RF splitters and telephone punch downs. When it is time to upgrade, just snap this module out and replace with one of more of the more sophisticated units.
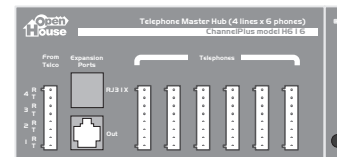
Data hubs
Termination blocks for the CAT-5 cables, Ethernet hubs. Bring the Internet to any room in the home. Or create a home data network.

Telephone hubs
Connections for 1-4 phone lines to every room. Starter hub adds RJ-31X jack for security system dialer.
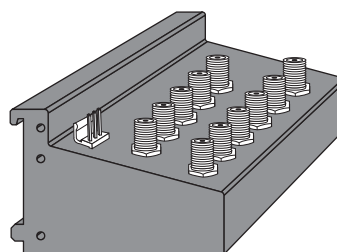
Wall plates
Wall plate systems for all rooms. The typical room gets TV and telephone. The Home office wall plate adds data ports. The media center wall plate adds satellite feeds.
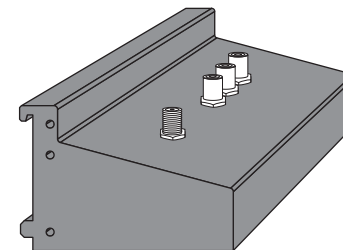
Coax panels
Distribute antenna or cable TV to every room of the house. Some models include bi-directional amplifiers for interactive cable systems. Some models include modulator inputs and IR engines.
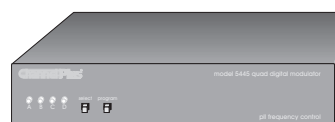
AV modulators (for service center)
Create a new TV channel for a front door camera. Some models feature Cat-5 input connections.
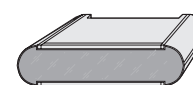
AV modulators (for media center)
Create new TV channels for DVD, VCR, or a satellite receiver. These modulators sit in the media center. Some offer true MTS stereo.

IR Accessories
Control video devices from any room.

New ChannelPlus products are added all the time.
Visit our website to learn more: www.channelplus.com

Open House™
ChannelPlus
3 x 8 Video Hubs
H838HHR & H838BID

Wiring a house for OpenHouse

The cables in an OpenHouse run from the various rooms of the house directly to the service center location. (This is known as 'home run' wiring.) Two types of wire are used for communication and entertainment: Cat-5, 4-UTP (4 Unshielded Twisted Pairs) wire handles data or 1 to 4 telephone lines. RG-6 coax handles television (antenna or cable), satellite dish, cable modem, or AV modulator signals. (An AV modulator creates new TV channels for front door camera, DVD player, a VCR or a satellite receiver.)

We recommend the following pre-wire schemes. Run these wires from the service center to the rooms indicated.

	Typical Room	Media Center	Home Office
Good	1 Cat-5 / 1 RG-6	1 Cat-5 / 3 RG-6	1 Cat-5 / 2 RG-6
Better	2 Cat-5 / 1 RG-6	2 Cat-5 / 3 RG-6	2 Cat-5 / 2 RG-6
Best	2 Cat-5 / 2 RG-6	3 Cat-5 / 3 RG-6	3 Cat-5 / 3 RG-6

Good ...
Typical room - phone, TV
Media center - phone, satellite receiver, AV modulators
Home office - phone, TV, cable modem
Better ...
Typical room - phone, TV, ethernet
Media center - phone, TV, ethernet, satellite receiver, AV modulators
Home office - phone, TV, ethernet, cable modem
Best ...
Typical room - phone, TV, ethernet, satellite receiver
Media center - phone, TV, ethernet, satellite receiver, AV modulators, hi-speed data
Home office - phone, TV, ethernet, satellite receiver, cable modem, hi-speed data

multiplex® technology, inc.

3001 Enterprise Street, Brea, CA 92821-6213, U.S.A.
714-996-4100 ∗ 800-999-5225 ∗ FAX 714-996-4900 ∗ www.channelplus.com

Warranty

Multiplex Technology, Inc. warrants this product to be free from defects in materials and workmanship for a period of one year from the date of purchase or MTI will repair, or at its option, replace the defective product. To obtain warranty service, call MTI for a return material authorization (RMA) number and return the product prepaid to Multiplex Technology, Inc., 3001 Enterprise Street, Brea, CA 92821, Attention: Customer Service. Please put the RMA number on the outside of the carton.

Any implied warranty arising from the sale of the product including implied warranties of merchantability and fitness for purpose are limited to the warranty stated above. MTI shall not be responsible for losses or damages or expenses, whether direct, consequential or incidental arising from the use of or the inability to use this product. Some states do not allow limitations on how long the implied warranty lasts or the exclusion or limitation or incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which may vary from state to state.